



**Your time is worth something.
Capture and concentrate microbes in a breeze.**

Wastewater-based epidemiology solutions for your lab.



Rapidly and easily capture and
concentrate microbes of interest
with Nanotrap® Technology

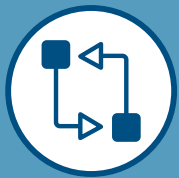
Nanotrap Particle Technology

Enhanced and Streamlined Wastewater-based Epidemiology Testing

Nanotrap® Particles capture, concentrate, and preserve microbes from raw sewage, requiring no filtration, centrifugation, or bead-beating. They capture and concentrate a wide range of analytes, including microbes, proteins, peptides, extracellular vesicles, nucleic acids, drugs of abuse, and hormones.

Large-scale wastewater surveillance is used to help communities monitor infection dynamics for SARS-CoV-2 and other microbes of concern. Robust, high-throughput methods based on Nanotrap Microbiome Particles are enabling widespread implementation.

Key Benefits



Simplified workflow.

- Eliminate filtration, centrifugation, and bead-beating methods, without sacrificing sensitivity.
- Spend less time in the fume hood.
- Shelf stable product for up to 6 years at room temperature — no need for cold storage.



Highly compatible.

- Compatible with RT-qPCR, RT-ddPCR, RT-dPCR, and sequencing-based analysis methods.
- Manual and automated protocols are available for use with a wide range of RNA/DNA extraction kits.



Capture more. Get better data.

- Improve capture efficiency with 2–10x higher recovery.
- Need better performance? Add a Nanotrap Enhancement Reagent to improve results by another 1–2 C_t values.



Environmentally friendly. Less plastics = Less waste.

- Reduce biohazard waste by using less plastic consumables compared to other methods.
- Free up valuable lab storage space.



Capturing more DNA and RNA decreases the chances of a miss in your downstream test.

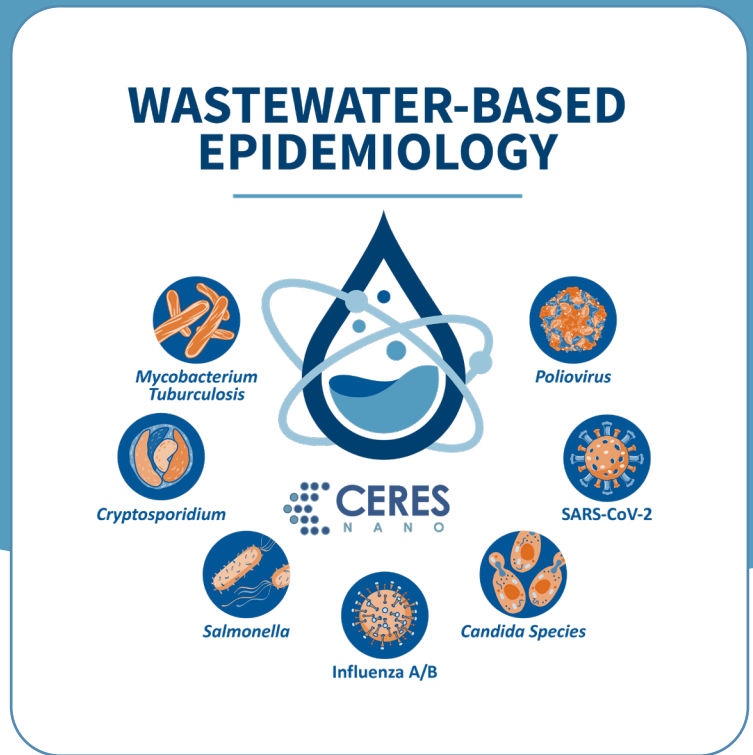
Speak with a specialist: support@ceresnano.com

For Research Use Only. Not for use in diagnostic procedures.

A Single Workflow – Multiple Pathogens, Multiple Sample Types

Large-scale wastewater surveillance is used to help communities monitor infection dynamics for viruses like SARS-CoV-2, bacteria, fungi, and parasites. Nanotrap Particle Technology is used by labs around the world to capture and concentrate important pathogens of interest.

Global Pathogens of Interest Routinely Measured Using Nanotrap Particle Technology



Viruses	Bacteria	Fungi	Parasites
Adenovirus	<i>C. difficile</i>	<i>C. auris</i>	<i>Cryptosporidium</i>
Bovine Coronavirus	<i>C. jejuni</i>	<i>C. lusitaniae</i>	<i>Cyclospora</i>
Enterovirus A71	<i>C. trachomatis</i>		<i>Giardia lamblia</i>
Flu A and B	<i>E. coli Colistin MCR-1 (AMR)</i>		<i>Entamoeba histolytica</i>
Hepatitis E	<i>E. coli JJ1887 (AMR)</i>		
Hepatovirus A (HAV)	<i>E. coli O157:H7 (AMR)</i>		
Mpox Virus	<i>E.coli OXA-048 Ranjbar</i>		
Non-polio Enterovirus	<i>H. pylori</i>		
Norovirus GI and GII	<i>K. pneumoniae</i>		
Polio Virus	<i>L. monocytogenes</i>		
Rotavirus	<i>M. abscessus</i>		
Respiratory Syncytial Virus A	<i>M. genitalium</i>		
Respiratory Syncytial Virus B	<i>N. gonorrhoeae</i>		
Sapovirus	<i>S. enterica</i>		
SARS-CoV-2	<i>S. epidermidis</i>		
Vaccinia Virus	<i>S. flexneri</i>		
	<i>S. sonnei</i>		
	<i>S. typhi</i>		
	<i>S. typhimurium</i>		
	<i>V. cholerae</i>		

*List is an example and not exhaustive. Contact us for more information.

Remarkable Viral RNA Recovery

SARS-CoV-2 Study: Detected 1 asymptomatic individual in a building of 415 residents¹ from a 10 mL sample volume with a method using Nanotrap Microbiome Particles.

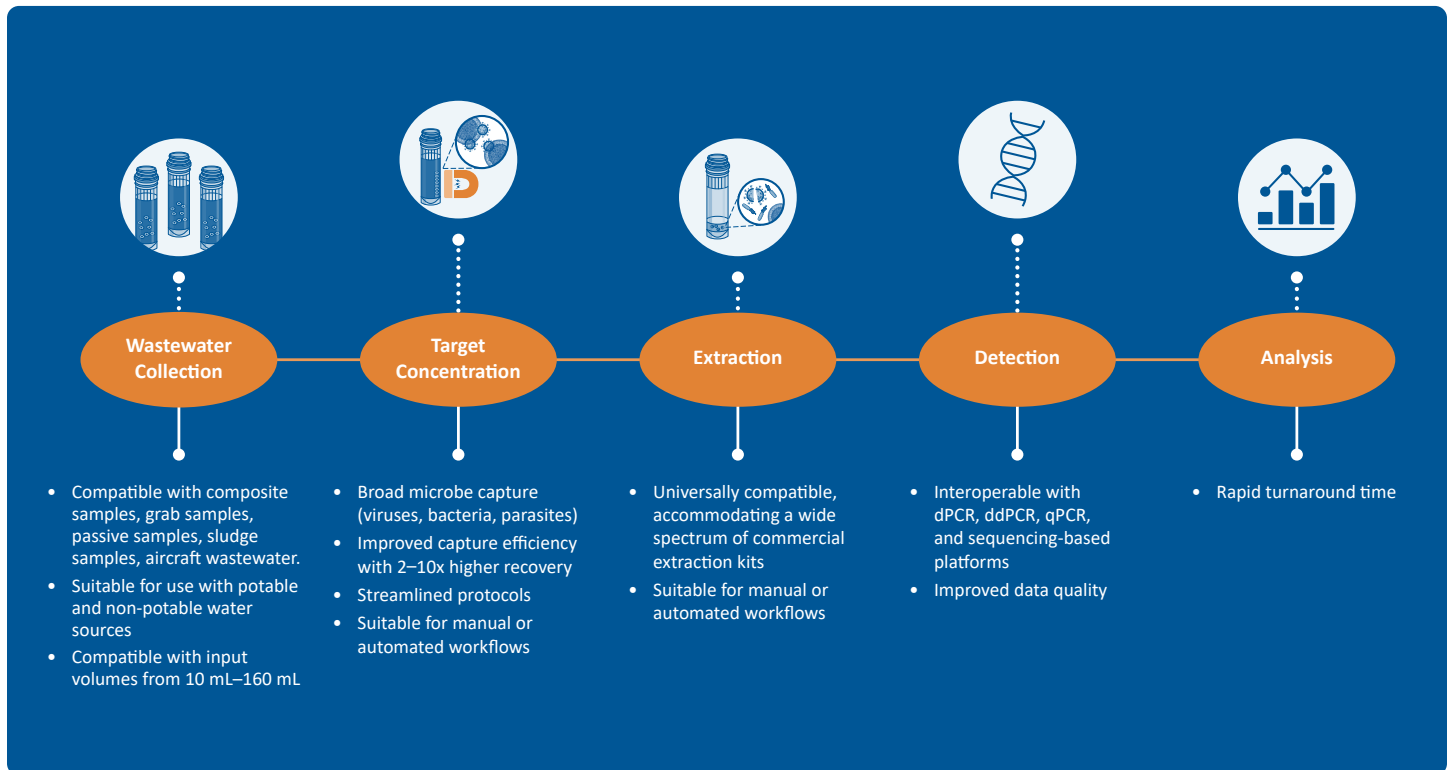
See our wastewater focused application notes, posters, and protocols.



Wastewater-based Epidemiology Workflow

Accelerate Your Time to Extraction

Nanotrap® Particles integrate seamlessly into existing workflows, requiring significantly less time and effort than other traditional methods of microbe concentration.

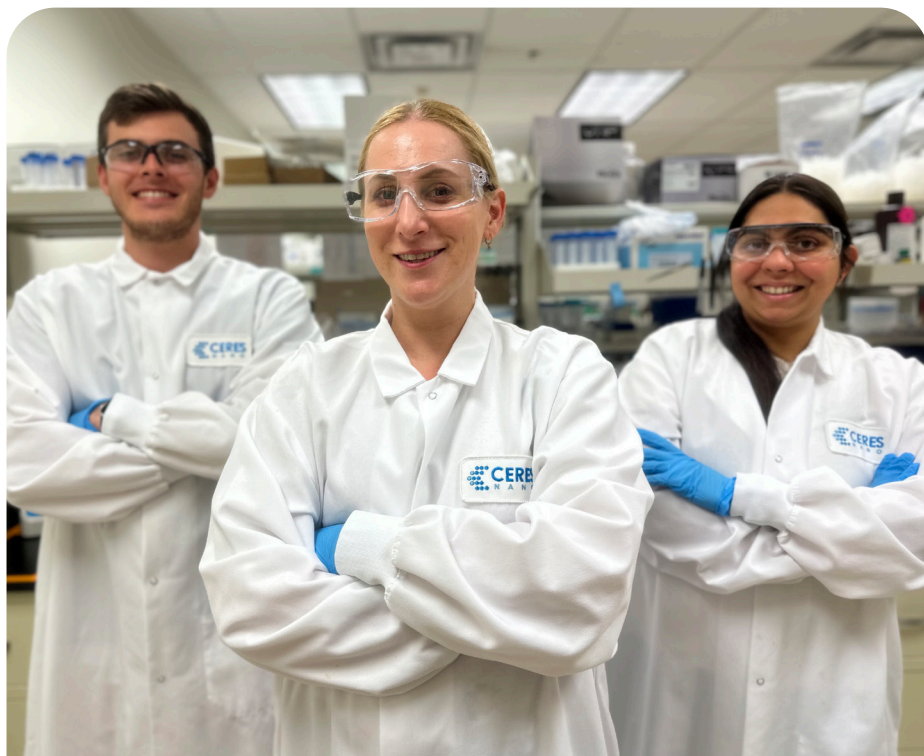


By switching virus concentration methods to Nanotrap particles, a customer² improved turnaround time for wastewater test results from 3 days or more to less than 1 day, while simultaneously increasing throughput to more than 100 samples per week.¹

Speak about your workflow with a specialist:
support@ceresnano.com

CeresNOW Support – We're here to help

Take advantage of CeresNow, our expert technical support — get answers when you need them with lightning-fast response times.



CeresNOW Key Benefits



Fast Response Time

Remote and on-site support available with less than 24-hour response time on normal business days.



Resources

Searchable website with protocols, application notes, and technical notes.



Continued Support

Technical customer support from the first meeting to installation and beyond.



Ph.D.-Level Support







One trusted partner for your entire sample prep workflow – from capture to extraction.

CeresNOW Support – Contact a specialist to learn more.
support@ceresnano.com



Ceres Nanosciences Wastewater-based Epidemiology

Products

Product	Description	SKU
 <p>Nanotrap[®] Microbiome A Particles</p>	<p>Ready to ship in 10 mL vials or in 30 mL vials. Inquire about custom packaging options (up to 1 L bottles)</p>	44202
 <p>Nanotrap[®] Microbiome B Particles</p>		65202
<p>Nanotrap[®] Enhancement Reagents combined with the Nanotrap particles improve the binding of microbes in these samples, further improving downstream detection of nucleic acids. Automated and manual methods are available.</p>		
 <p>Nanotrap[®] Enhancement Reagent 1 (ER1)</p>	<p>Ready to ship in 10 mL or 30 mL vials. Use 0.1 mL of reagent for each 10 mL wastewater sample.</p>	10111-10
 <p>Nanotrap[®] Enhancement Reagent 2 (ER2)</p>		10112-10
 <p>Nanotrap[®] Enhancement Reagent 3 (ER3)</p>		10113-10
<p>Nanotrap Buffer 2 improves manual workflows for applications using aqueous sample types. Ready to ship in 100 mL vials. Use 1 mL of buffer for each 10 mL wastewater sample.</p>		
 <p>Nanotrap[®] Buffer 2</p>	<p>Pull volume- 100 mL bottle.</p>	10102-100

References

1. High throughput wastewater SARS-CoV-2 detection enables forecasting of community infection dynamics. mSystems, March 2021. <https://journals.asm.org/doi/10.1128/msystems.00045-21?permanently=true>
2. The Value of Wastewater Surveillance to Support COVID-19 Response in a Community with Large-scale Asymptomatic Testing. https://www.nemc.us/meeting/2021/load_abstract.php?id=295

Contact Us

Phone: +1.800.615.0418x1

Web: www.ceresnano.com/wastewater

Email: info@ceresnano.com